

been minutely inspected by the American ambassador.

St. Paul's Church at Belfast was consecrated on the 30th September by the Bishop of Down.

The Fergus Drainage works are to be resumed, and the necessary capital has been placed at the disposal of the Board of Works by the Government.

#### COMPETITION SCULPTURE.

Your journal being open to all, I beg to present you with the following extract from a work published in 1697, and which may be applicable to the present times. It runs thus:—

"Hints to ye statuary of ye present times, by which ye committees of taste may find pleasure in ye work; or, how to furnish out a statue to suit ye good taste of ye committees.

Primo.—Break ye ye spine of ye statue, it gains elegance of line, and aids in twisting ye body and ye hips to ye liking. Secundo.—Dislocate ye neck of ye statue and twist ye head violently round to ye right or left, so that much vigor may therefore be made to become apparent. Tercio.—Let ye pectorals be broad and ye deltoides massive, with ye knee pans well shown and ye stomach of exceeding great dimensions.

Dress ye figure in ye costume of ye day, but be it so arranged that ye committee of taste (or contrarywise) may see it grow from ye statue. Rub it down well with ye mop or handwiper, and then print in ye Times, ye Flying Mercury, or ye Magazine for Gentlemen, that it be completed; but, above all, get ye the money first!"

Boh.

#### THE DONCASTER WATER-WORKS COMPETITION.

THE plans and specifications lodged in response to the offer of a premium of 100*l.* for the selected scheme, having been examined by the borough engineer, Mr. Alexander, he reported on the same to the committee, who adopted his report and laid it before the council, who have confirmed the same, and awarded the premium to the successful competitors.

The engineer found that the correct number of designs was fifteen, not seventeen, as stated in the council, two of the parcels consisting of specifications and estimates to plans amongst the fifteen lodged. The reporter enters at length into the merits of each design, and presents the following "Analysis" of the whole:—

"It appears that the competitors have selected various sites, some offering designs for one site only, some for two sites, and one for three sites, and which may be classed as follows; namely, for the

Present works, there are designs Nos. 4, 5, and 8, the estimates with the additions varying from 9,247*l.*, 10,260*l.*, to 8,201*l.*

Dispersary site, there are designs Nos. 1, 5, and 13, the estimates with the additions varying from 13,386*l.*, 10,260*l.*, to 9,337*l.*

Marsh-gate site, there are designs Nos. 2, 6, 9, 10, 11, and 12, the estimates with the additions varying from 11,033*l.*, 10,782*l.*, 9,925*l.*, 8,740*l.*, 12,046*l.*, to 15,150*l.*

Crimpsall site, there is one design, No. 15, the estimate with the additions being 11,750*l.*

Beyond the boundary of the borough, Isabel Wath site, there are designs Nos. 2, 6, and 7, the estimates with the additions varying from 10,697*l.*, 9,580*l.*, to 9,180*l.*

Don Cottage site, there are designs Nos. 2, 3, 5, 11, and 11, the estimates with the additions varying from 10,708*l.*, 10,290*l.*, 11,783*l.*, 10,734*l.*, to 13,685*l.*

Several of the plans, he states, evince much scientific knowledge and experience, eleven of them being from professional engineers, seven of whom are employed at the present time in works of a like description.

As to the selected design, the reporter says:

"I have not the least hesitation in advising your approval of the plan and design No. 6, a site within the borough, as being the best and most applicable to the locality, in compliance with the advertisement and instructions, and calculated to secure an ample, continuous, and unrestricted supply of pure filtered water to the whole town. It is not the least expensive, but it is below the

average of the estimates generally. The arrangement of the system is compact, comprehensive, and scientific—full and practical in all its detail, exhibits great experience, and a thorough knowledge of the subject. The works are not of greater extent or magnitude than prudence or foresight dictate, regard being had to the increasing population of the town."

The successful competitors are Messrs. Nicholson and Tone, of Newcastle, engineers. They say in their report to the council that,

"With reference to that part of the advertisement requiring the party to be prepared to undertake to execute the works, if required, for the sum estimated, we beg to state that not being ourselves engaged in contracts, nor in executing public works as contractors, we have laid our plans and specifications before Mr. Richard Cail, of this town, a highly respectable and responsible contractor of public works, who has had great experience, and that he is prepared to execute the whole of the works comprised in the plans and specifications for the sum of 9,880*l.* 3*s.* exclusive of land, and to give satisfactory security for their completion. And further, if our plans be adopted, the engine, boilers, pumps, &c. together with the Edenfield malleable iron tank, will be supplied and erected by Messrs. Robert Stephenson and Co., the celebrated engineers, of this town, whose well-known character will, we hope, be a sufficient guarantee that they will be efficient and of first-rate workmanship."

To their report is appended an alternative scheme for taking the supply from the river at Isabel Wath; their chief design being applicable to Marsh-gate. There is also a rider relating to sites beyond the borough.

#### THE CONDITION OF OUR POOR—THE FEMALE POPULATION.

MUCH has been said in your valuable Journal about dwellings for the poor and lodgings for workmen by "Tabitha Quiet" and others, all desirous of bettering the condition of the class in whose behalf they write; and that it greatly needs amendment none will deny; but upon the question how this object is to be effected there exists great disparity of opinion. For my own part I feel obliged to answer in the first place negatively, not by merely building model lodging-houses, however cheap or numerous, or however well adapted the arrangements, nor yet simply by a good supply of water, light, or air: these, although quite indispensable, are not by themselves adequate to the removal of the evil, of which daily observation has convinced me. You will ask, then, where is the source of the evil, and in what corner doth it hide itself? I believe it is to be found in the bad management of our youth. The nature of my employment brings me constantly in contact with the working population of both sexes; and I am often grieved at what I see and hear, and almost shudder when I reflect that the children of this age will be the parents of the next. What can be expected from nine-tenths of these youths, and especially from the softer sex? And I feel confident that the greatest source of moral evil is to be found in the want of proper education for the female population. By education I do not mean simply reading, or writing, or anything which may be learned at school, but that home education which is so invaluable, and which cannot be learned or taught in any other than a domestic school. How fearfully deficient the present age is in this kind of education may be seen by the crowds of girls of different ages that are to be found about every low locality; and well would it be if wives and mothers were not seen lounging about the corners of the streets, or in the houses which are generally placed at the corners—the pawnshops and gin palaces.

What is the result? The husband coming in from his work, expecting a frugal but comfortable meal, finds, instead, a piece of tough steak, badly cooked, and worse served, at a cost greater than that of a good meal. And if he can spare time to look round him, what does he witness but his children half naked and half wild, and his apartment in a state of dirt and untidiness. What can we expect the children of such a home will be? It is quite evident that the daughters will neither be fit

for servants, wives, nor mothers: a step lower, and they become the pest of society.

Inseparable from the evils I have spoken of is another—I mean improvidence. The wages of the working classes are as high as I ever knew them to be; and I think that everything the working men has to buy is cheaper than ever I knew it to be before. But what is he the better? Nothing. Nor would he be if his pecuniary advantages were doubled: all would go—all would be spent, for few of them live within their means.

A short time since I mildly remonstrated with two men, who were earning at the rate of 2*l.* per week each. I suggested the propriety of laying by a little to meet any future emergency, either of accident or old age; but the melancholy reply was,—"There is a hospital for accidents and a workhouse for old age, and the parish must support me!" This, I am sure you will admit, is a deplorable state of things; but it is true in thousands of instances. This want of prudence and self-respect produces ten times more pauperism than any calamity brought on by causes over which they have no control. I know there are many admirable exceptions, but they are exceptions.

I should advise our friend "Tabitha" to visit some of the low districts I have hinted at. Let her perambulate the neighbourhood of the Seven-dials and Drury-lane, and the streets, lanes, and courts connected. She should enter as many of the dwellings as she could, examining them floor by floor, and room by room. What scenes of poverty, filth, and wretchedness, would she not witness, and this even in houses where there is no lack of water, light, or ventilation, or rather, I ought to say, the means of ventilation; for in many cases the inmates are either too idle to pull down a sash, or too ignorant to know what beneficial results would ensue if they did so. Let me then suggest to those who have in view the welfare of the working classes, not only to make dwellings fit for the poor, but, if possible, to make the poor fit for the dwellings. C. M. E.

#### MEANS OF PROMOTING THE AUDIBILITY OF SOUND.

THERE is perhaps no science so abstruse and difficult to be understood as that of acoustics; nor one for the practical application of which so few opportunities present themselves. For these reasons it has fallen into much—it may be, too much—disregard.

One occasion, at least, there is, in which it might be directed to a valuable purpose, I mean that of devising some mode by which the voice may be rendered more audible in large churches, the Houses of Parliament, and other places of public speaking, which demand uncommon power of the vocal organs.

Hitherto, all means of accomplishing this end have been confined exclusively to sounding-boards, which, to a certain extent, answered the purpose well, and if I do not greatly err, their abandonment will eventually be found one of the worst mistakes which has been committed in the modern practice of church-building. Whoever feels desirous of ascertaining the effect of sounding-boards, so far as their influence can reach, may satisfy himself by an easy experiment; and he had better feel content with nothing short of it, as theory, however valuable upon many occasions, avails little here. Let him on a weekday, when the church is empty, speak from any pulpit which has a sounding-board over it; then let him mount a ladder placed against the next column, and speak from the same level. Our ancestors understood this subject quite as well as ourselves. In an experiment of this kind, which I made some years ago, the proof was clear to myself and all present.

But other modes of promoting the reverberation of sound with yet greater efficiency I cannot doubt may be adopted; such as ornamental sounding-boards slightly concave, somewhat like a scollop-shell, and placed at the distant angles of the building, and perhaps also against the ceiling, according to the construction of the room.

It would require some experimental know-